TRANS SEAS

INSTYLE

ecoustic®

Acoustical Collection

In an office, proper room acoustics is a key factor to work performance and employee well-being. In a classroom, acoustically impaired settings lead to decreased attention and reduced cognitive ability. In a restaurant or auditorium, acoustically uncomfortable spaces can spoil the best occasion.

It is difficult to imagine any well-designed interior space used for communication and social interaction that does not take acoustic performance into account.

Trans Seas Acoustical Collection provides multiple functional and aesthetical acoustical ceiling and wall treatment solutions to effect sound absorption and sound diffusion in a wide range of interior spaces.

Our purpose is to minimize noise distraction while maintaining the benefits that human interaction brings to work and social environments.

Ecoustic Panel

Ecoustic Edging

Acoustical Collection

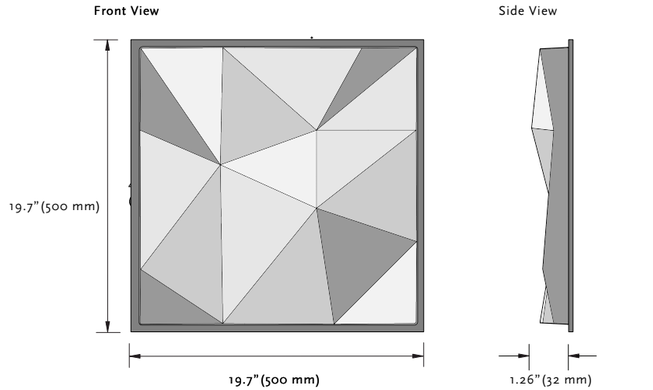
ecoustic® Tile - Matrix by Instyle

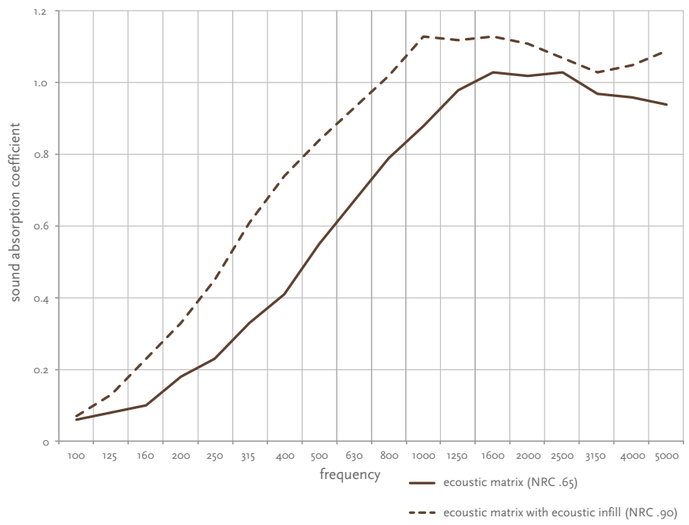
Instyle ecoustic™ Matrix Tile can be used on walls and ceilings to absorb and diffuse sound. Matrix presents a bold three-dimensional design that will add depth and modern beauty to any space. Create your own piece of art by mixing 16 colors and rotating tiles to create unique patterns.

Matrix tiles are produced from 100% polyester that has a minimum of 50% recycled content and is finished with a face of polyester felt.

Matrix earns a NRC rating of .90 when specified with an optional infill.

The tiles have a Greentag Level A certification. Matrix installs in a “snap” with a simple clip system that is easily pre-positioned on a wall or ceiling by use of an accompanying template.





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Acoustical Collection

ecoustic® Tile - Linear by Instyle

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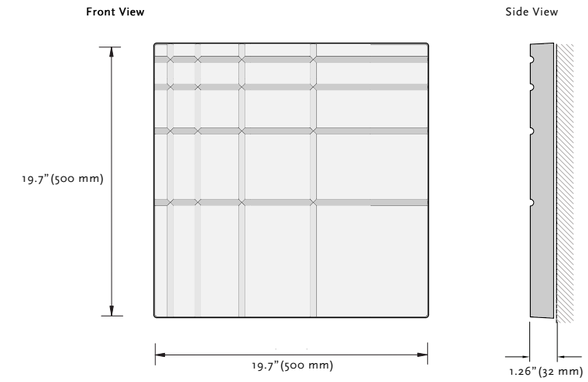
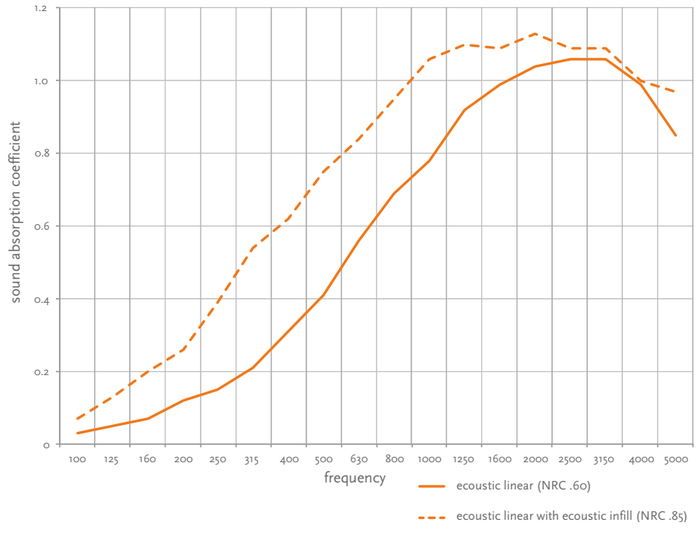
The bold multi engraved pattern of ecoustic™ Linear Tile creates a modern abstract design that can be easily manipulated to create stunning patterns and color statements. Turn the tiles and make wall and ceiling design your own creation!

Linear is composed of 100% polyester that has a minimum of 50% recycled content and is finished with a face of polyester felt. Linear earns a NRC rating of .85 when the optional infill is used. The tiles have a Greentag Level A certification. A simple clip system that is easily pre-positioned on a wall or ceiling by use of an accompanying template makes installation of Linear a “snap”. Tiles are available in 16 colors.



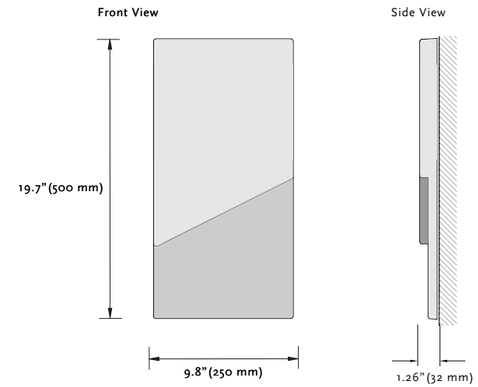


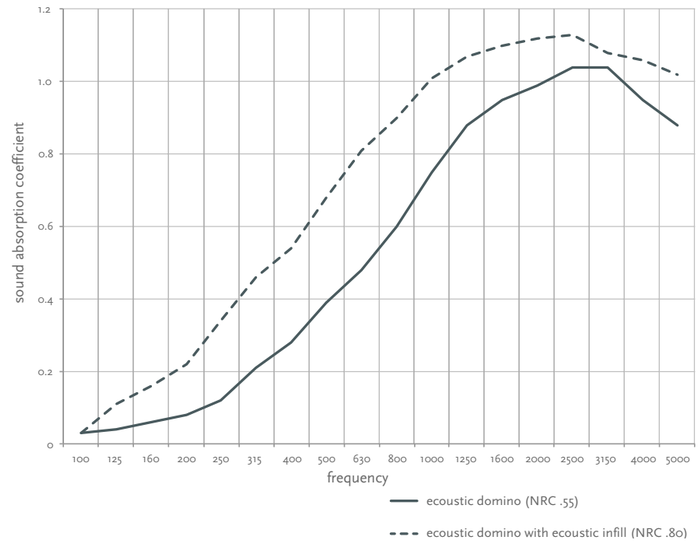
Acoustical Collection

ecoustic® Tile - Domino by Instyle

The rectangular shape of ecoustic™ Domino Tile, combined with the multi-depth diagonal pattern and 16 color-ways allows for endless custom design possibilities for walls and ceilings.

Domino, like Matrix and Linear of the ecoustic™ tile series, is produced using 100% polyester that has a minimum of 50% recycled content and then is finished with a face of polyester felt. Domino earns a NRC rating of .80 when ordered with the optional infill. The tiles have a Greentag Level A certification. Domino installs in a “snap” with a simple clip system that is easily pre-positioned on a wall or ceiling by use of an accompanying template.



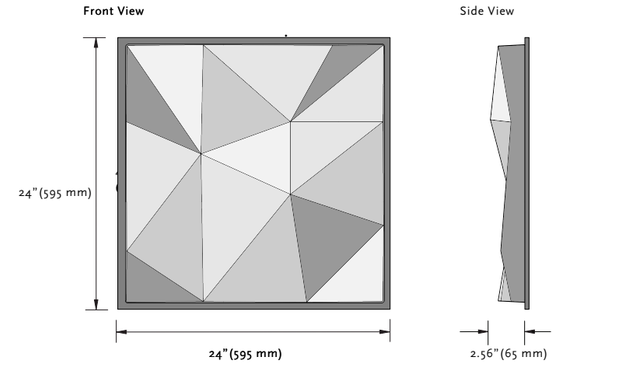


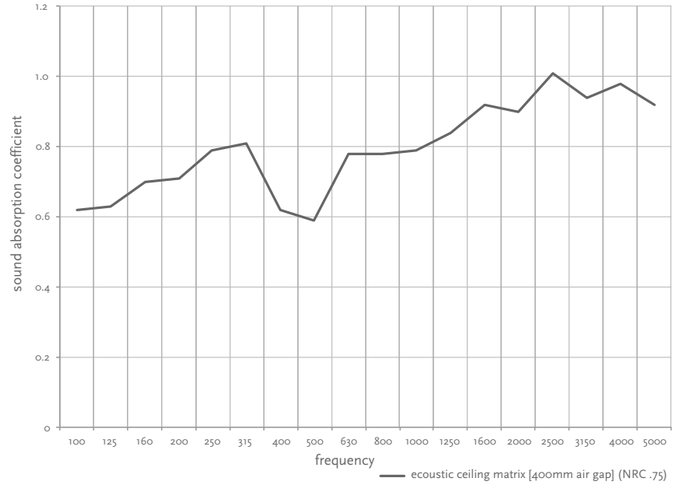
Acoustical Collection

ecoustic® Matrix Ceiling Tile

The three-dimensional design of ecoustic™ Ceiling Matrix enhances absorption and diffusion for suspended ceiling applications and achieves an NRC rating of .75. By altering the orientation of the Matrix tiles, subtle or commanding patterns can be created that play with light and shadow.

ecoustic™ Ceiling Matrix tiles are produced using a low-energy manufacturing process from 100% polyester that has a minimum of 50% recycled content and a felt facing. The tiles are rated "low-VOC" and have a Greentag Level A certification. Lightweight and easy to install, ecoustic™ Ceiling Matrix tiles are 24"x24" and are available in 16 color-ways.





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Acoustical Collection

ecoustic® Moov by Andrew Cliffe

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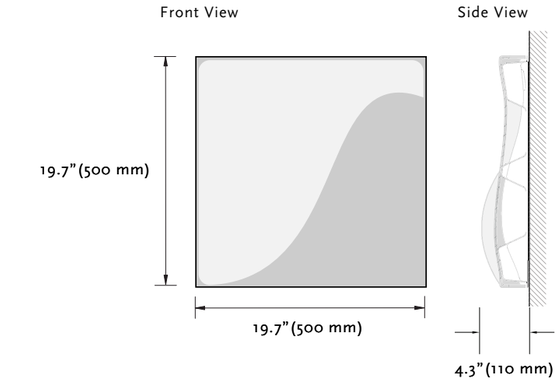
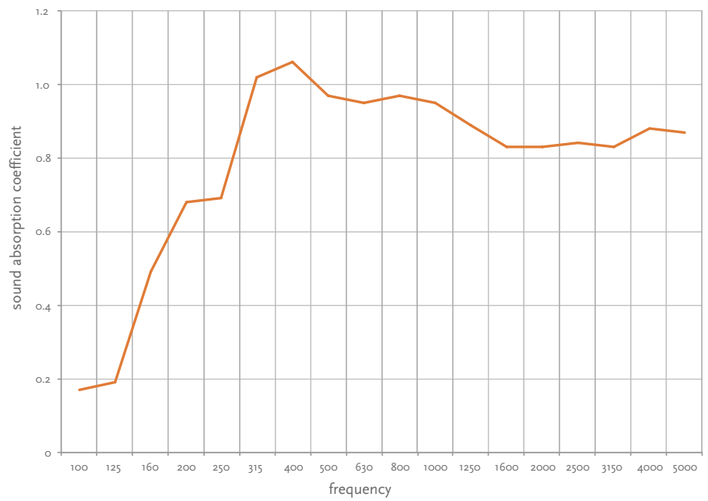
Instyle ecoustic™ Moov is an elegant wall and ceiling acoustical tile designed to provide excellent broadband sound absorption and sound diffusion in any interior space. Achieving an outstanding NRC of .90, the smooth hyperbolic curves of ecoustic™ Moov can be customized through the use a wide range of color-ways.

Quick and simple to install, the rear-mounting sound chamber tile component of ecoustic™ Moov is easily fixed to most surfaces, while the molded ecoustic™ polyester tile face easily self-fastens onto the sound chamber tile. An aluminum trim kit neatly finishes exposed edges. Tiles are available in 16 color-ways.





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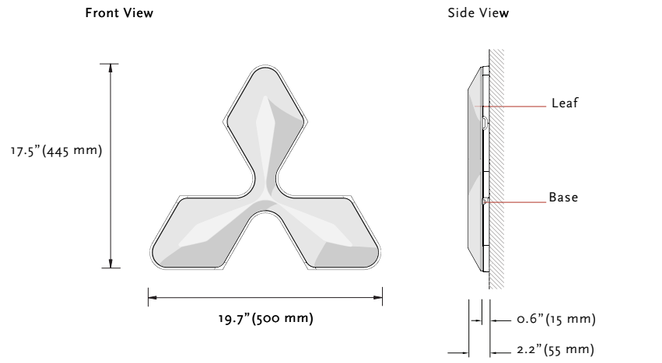
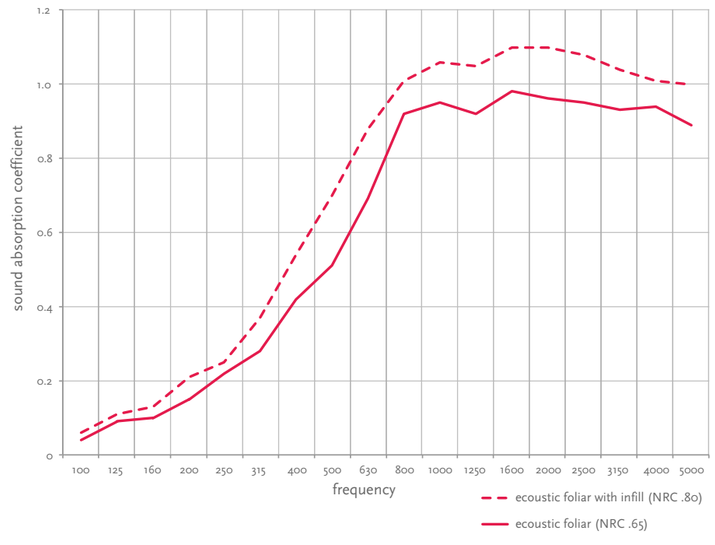
ecoustic® Foliar by Adam Cornish

Foliar is a versatile, striking and dynamic wall feature design that has been inspired by the tessellating cellular structures found in nature. Individual tiles can be installed as endless organic formations that build formations of positive and negative space.

Foliar is quick and simple to install. The plastic base, available in 5 colors, is easily fixed to any flat surface. Choose non-acoustic flexible rubber leaves from 7 color-ways that snap into the base, or from 16 color-ways of polyester molded ecoustic™ leaf tiles (NRC of .80 with optional infill) that magnetically adhere to the base. Both leaf options permit easy installation and reconfiguration. Alternatively, the leaves can be permanently fixed.






EXIT

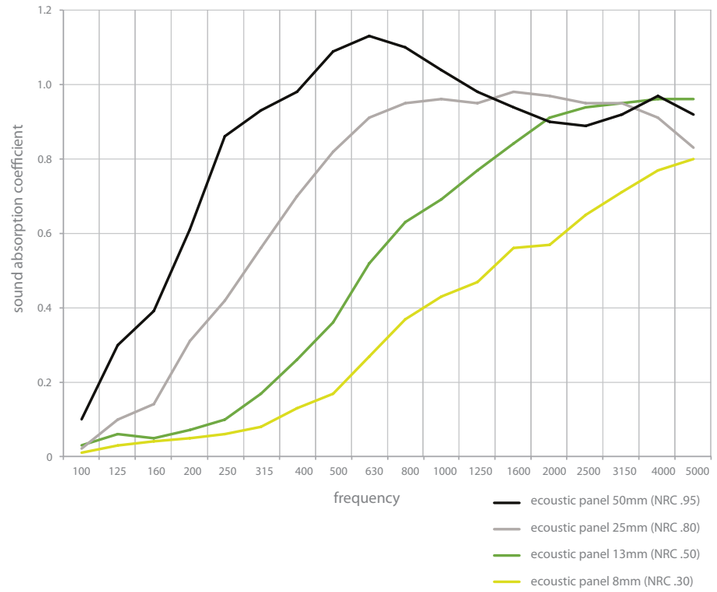
Acoustical Collection

ecoustic® Panel, Screen & benching by Instyle

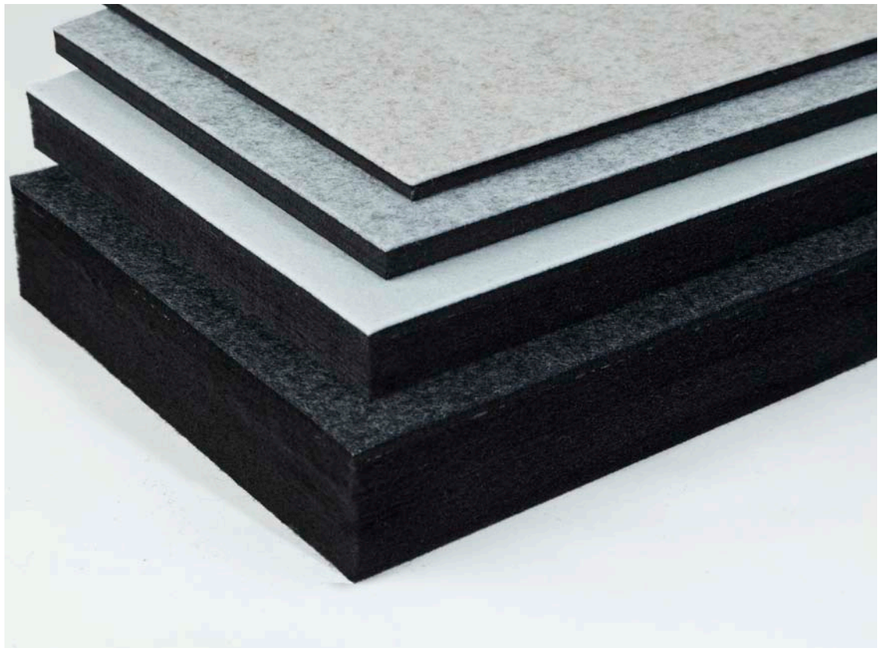
Instyle ecoustic™ panels are designed to reduce and control reverberated noise in building interiors by application to wall or ceiling surfaces. Our ecoustic™ panels feature superior acoustic absorption, design aesthetic, easy field trim and installation and environmental responsibility. ecoustic™ panels are presently used in office, government, education, public building, hospitality, retail and residential interiors.

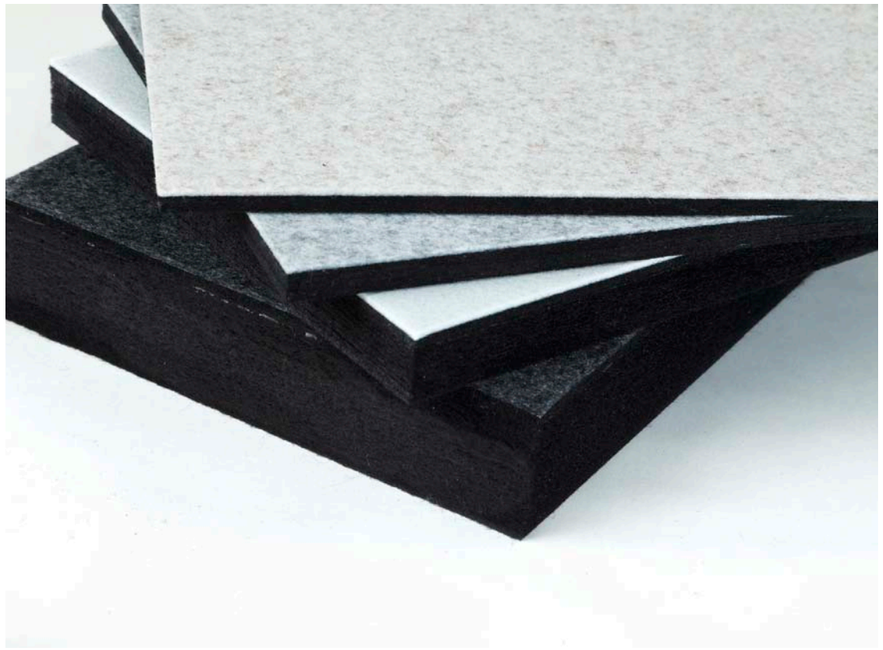
Depending upon your acoustical requirements Instyle ecoustic™ panels are available in four thicknesses: 0.31"(8mm), 0.53"(13.5mm), 0.98"(25mm), 1.97"(50mm). The panels are comprised of a polyester core and a thermally bonded polyester felt face that is available in 16 colors. ecoustic™ panels are tackable, moisture resistant and fire rated. Aluminum trim kits are available.

NRC's range from .30 to .95.



Ecoustic Panel Thickness





Acoustic Terms & Definitions

Absorption: The conversion of sound energy to heat energy. It varies with the frequency and angle of incidence of the sound that strikes acoustic material. A "soft room" is a space with highly absorbent surfaces whereas a "hard room" has surfaces of low absorbent value and are therefore highly reflective and reverberant.

Air-borne sound: Sound that travels through air rather than through structure.

Air Gap: For effective absorption of sound energy, the sound wave should pass through the absorbent material during its maximum velocity (quarter-wavelength). The speed of sound is zero when it meets a rigid barrier such as the backing wall of a sound absorbing material. Increasing the thickness of the sound absorber or providing an air gap between the absorber and wall will improve absorption.

Broadband sound: A spectrum of sound consisting of a large number of frequencies, none of which is dominant.

Critical distance: The distance from a sound source at which the energy of direct sound and reverberant sound are equal.

Decibel (dB): The measurement term used to define sound intensity. A 10 times increase in sound intensity is defined as a Bel (named after Alexander Graham Bell); 4 Bels represent a 10,000 times increase in sound intensity. A decibel is 1/10th a Bel; 40 dB equal 4 Bels. A 1dB change in sound intensity is just noticeable; most humans can distinguish a 3dB change and consider a 10dB change as twice or half loud.

Diffraction: The change in direction of sound resulting from a discontinuity of a boundary (say, an open door).

Diffusion: A means to distribute sound energy in equally probable directions.

Echo: A return of sound that is perceived as a discrete sound.

Flanking transmission: The transmission of sound by an unintended path.

Frequency: The number of back and forth vibrations of air molecules (cycles) that occur in a second; expressed as Hertz (Hz). Sometimes known as pitch.

Hearing: The ability of the human ear to translate changes from ambient atmospheric pressure caused by sound energy into a signal recognizable by the brain. Sensitivity to sound depends upon its frequency and energy. The audible range of frequency for humans is 20Hz to 20,000Hz, provided that at least 0 dB of sound intensity (the threshold of hearing) is present.

In phase: Sound waves that reach their peak compressions (and rarefactions) at the same time.

Insulation: The ability of material to prevent sound from reaching a location either by reflection back to the sound source or by acoustic resistance.

Inverse-square law: Sound intensity (sound energy per unit of area) varies inversely with the square of the distance from its source. Sound intensity decreases 6 dB for each doubling of the distance from its source.

Noise: Unwanted sound having no utility which may be airborne or structure-borne. Like a pollutant, noise needs to be limited and controlled to diminish its negative physiological, psychological, behavioral and cognitive affects.

Noise reduction coefficient (NRC): The arithmetical average, expressed as a decimal to the nearest .05, of the sound absorption coefficients at 250Hz, 500Hz, 1000Hz, and 2000Hz.

Octave: A doubling or halving of frequency. 20Hz-40Hz is considered the bottom octave in a series of even-order harmonics that extend without limit beyond the audible range.

Reflection: Sound and light are reflected off smooth surfaces in a similar manner – the angle of incidence equals the angle of reflection.

Refraction: The bending of sound waves travelling through media that conduct sound at varying speed.

Resonant frequency: Any object will vibrate at a particular sound frequency, its natural resonant frequency, when disturbed by physical force or by sound having frequency equal to its resonant frequency.

Reverberation: The lingering of sound in an enclosed space after the original sound source has stopped. A room with much reverb is said to be "live"; one without reverb is said to be "dead".

Reverberation time (RT60): The time, in seconds, that reverberant sound energy in a space diminishes by 60dB.

Sabin: The measurement unit, in inch-pounds, of sound absorption. One square foot of acoustic material having a sound absorption coefficient of 1 has a Sabin value of 1.

Sabine, Wallace C.: The father of modern acoustics and the developer of the Sabine reverberation equation; RT60 = .049 sec./ft. x Volume/Absorption Surface

Sound: A vibrational disturbance comprised of alternating compressions and rarefactions of air molecules. The compressions push air together and thereby cause higher-than-normal atmospheric pressure, whereas rarefactions spread air molecules further apart thereby causing lower-than-normal atmospheric pressure. Total sound energy is the potential energy from ambient air pressure and the kinetic energy of moving air molecules.

Sound absorption coefficient ("alpha"): The amount, expressed as a decimal value between 0 and 1 to the nearest .05, of sound energy that is absorbed, or otherwise not reflected, by an acoustic material at a specified frequency.

Sound masking: The process by which the audibility of one sound is diminished by the introduction of another sound. White noise uses equal sound energy at all frequencies and thereby favors higher frequency spectra. Pink noise balances sound energy over a series of octaves and sounds less harsh.

Sound transmission class (STC): A rating system that provides an estimate of the insulation ability of a partition.

Structure-borne noise: The generation of unwanted radiated sound caused by vibrational forces in solid materials.

Wavelength: The distance a sound wave travels from compression to the next compression. The wavelength (or period) of sound at any frequency can be computed by dividing the speed of sound (1087 ft./sec.) by its frequency. At 20Hz, the wavelength of sound is 56 feet long. These long sound waves give low frequency sound (bass) its penetrating ability.

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